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None

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(54) Abstract Title

A mop bucket with a filter

(57) A mop bucket is divided into two main compartments 9,11 by a partition 4. Within compartment 11 is a filter compartment 10 containing a resilient filter 14. The filter compartment has an aperture 7 in a wall, which in the embodiment is common with the partition wall, this aperture communicating with the compartment 9. The upper end of the filter compartment is closed by a movable compression plate 5 which has apertures 7 for allowing entry of liquid from compartment 11. Mounted above the filter compartment on two guides is a mop wringing device 3. The arrangement is such that the container is filled in both compartments 9, 11 to below the top of the partition 4. The mop is wetted in compartment 11 and wrung out in device 3. By pressing down on device 3 the compression plate compresses the filter and cleaning solution is forced through the filter and into compartment 9 via the communicating aperture 7. Subsequent wringing of the mop causes dirt to be filtered out of the cleaning solution and thus there is always clean solution available in compartment 9 for mopping. The wringing device may be of the mechanical sort.

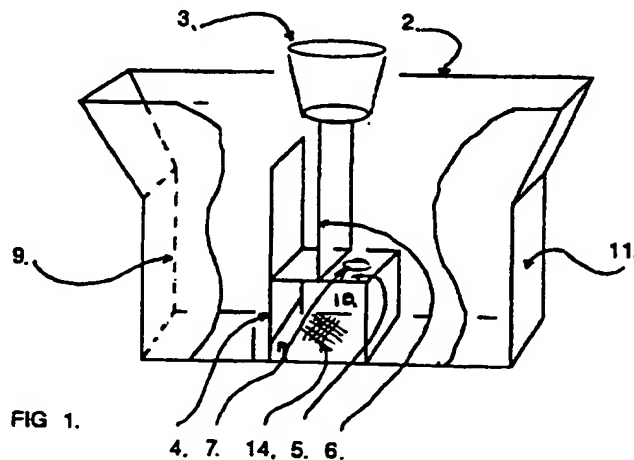
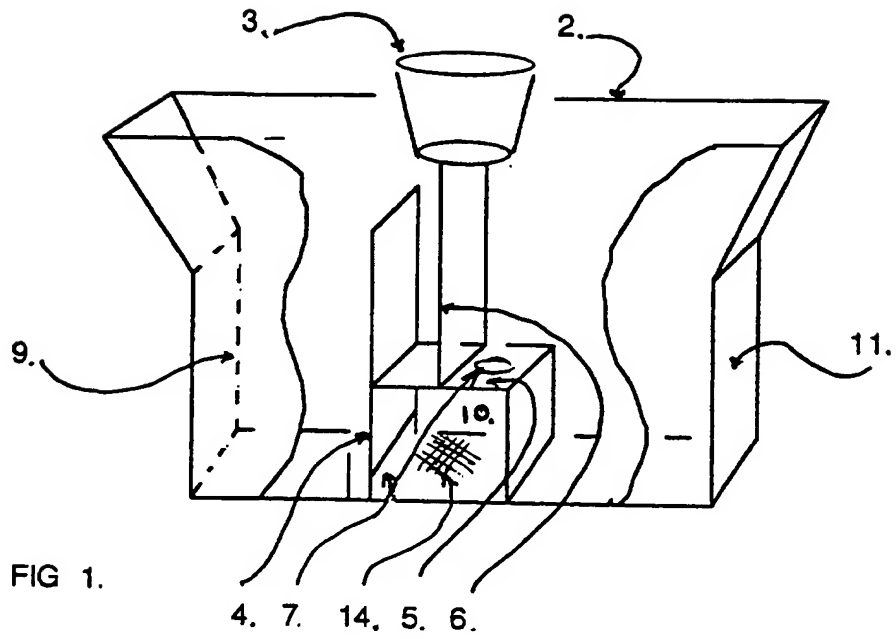


FIG 1.

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MOP BUCKET

# MOP BUCKET BACKGROUND AND SUMMARY OF THE INVENTION

Mop Buckets are well known and are used in the cleaning of surfaces, they comprise of a receptacle for fluid and a mop squeezer for the extraction of fluid from the mop.

## MOPPING PROCEDURE.

- 05 The procedure for single solution mopping requires the operative to soak the mop and squeeze the excess fluid out then proceed to mop the floor surface, rinse the mop in the same solution, then squeeze the dirty solution from the mop. This action is repeated frequently, consequently the solution soon becomes filthy and  
10 hygiene standards are compromised.

- It has been well known in the prior art to divide a bucket into two compartments, one for washing and the other for rinsing, also to connect them via a passage as in Sorrells U.S. 4161799 to facilitate displacement, also the use of a static filter member  
15 across the aperture as in Mcluskie G.B.2260691 the systems being gravity fed from dirty to clean.

- None the less known are circulatory systems as in Nichols U.S. 1326682 where the water is electrically pumped up through a static filter in to a diffuser and as in Vazquez G.B. 1520839 a  
20 spring loaded device elevates the water through a static filter to a bowl like drainer

- The present invention provides the means of a resilient filtration, the filter is located in a compartment at the base of the bucket, covered by a compression plate, when the plate is  
25 depressed a volume of water surges through the filter and via apertures in to the 'Dip' compartment, to such an extent that the water in the 'Dip' compartment may exceed, in height, that of the rinse compartment and ebbing may take place from clean to dirty. The surge and ebbing action facilitates secondary filtration when  
30 the plate is again depressed.

## 2.

This invention concerns a mop bucket and more particularly such apparatus of the kind comprising of three compartments, the smaller of which is suitable for a resilient filter and a compression plate with apertures for the directional movement of fluid.

- 05 When the compression plate is depressed against the resilient filter the fluid contained therein is forced through the filter and out through apertures in to the adjacent 'dip' compartment.

- A mop squeezing device maybe releaseably connected to the compression plate via elongate guide means, additionally the  
10 preferred squeezer is not restricted in movement up or down and may be depressed by direct physical pressure, via a mop and handle or through other mechanical means.

- When pressure is removed the resilience of the filter raises the compression plate to its original position and at the same time  
15 fills with solution, a succession of this 'surge action' raises the level of fluid in the adjacent 'dip' compartment, upon secession 'ebbing' from the 'dip' compartment takes place, facilitating secondary filtration.

- A further and clearer understanding of the invention will now be  
20 described by way of example with reference to a embodiment.

FIGURE 1. schematically illustrates the relevant embodiment.

The embodiment of figure 1.

- comprises bucket body 2.; mop squeezer device 3.; division  
panel 4.; compression plate 5.; squeezer guides 6.; filter  
25 apertures 7.; resilient filter 14.; compartment 9.; compartment 10.; compartment 11.

3.

05 According to the present invention there comprises a bucket, sub divided in to three compartments, compartment 9 for filtered solution, compartment 10 contains a resilient filter and compression plate, compartment 11 has provision for the squeezer device and sump.

The bucket is filled to the appropriate level in both compartment 9 and 11. that being a level above compartment 10 but below the hight of the division panel 4.

10 The operative soaks the mop in the sump compartment 11. and squeezes the excess out in the squeezer 3. the pressure exerted, either physical or mechanical is transferred via the guide means 6. to the compression plate 5. and forces the solution through the filter in compartment 10, and through apertures into compartment 9.

15 The operative would then use solution from compartment 9 to mop the surface, returning to rinse the mop in compartment 11 then starts the whole process again.

4.

## CLAIMS

While the invention has been described with particular reference to the illustrated embodiment, it is not intended to be limited thereby, and is in fact capable of variation within the scope of the appendant claims.

- 05    Claim 1. An open top container having a bottom and enclosing  
walls, vertical partition means within the container for dividing  
the bucket as to form a filter compartment with directional  
aperture at the base, a resilient filter therewith covered by a  
10    compression plate, therein directional apertures, and operable by  
direct pressure.

Claim 2. A container as claimed in claim 1. wherein vertical guide  
means are located as to direct pressure from a mop squeezer to  
the compression plate.

- 15    Claim 3. A container as claimed in claim 1. and 2. wherein a mop  
squeezer is releasable connected with the compression plate and  
has unrestricted vertical movement up and down.

Claim 4. A container as claimed in claims 1. 2. 3. wherein the  
compression plate is depressed by the use of physical or  
mechanical means.

- 20    Claim 5 A container as claimed in claim 4 that has a handle and or  
wheels for the ease of movement. (not shown).



**Examiner:** John Wilson  
**Date of search:** 5 June 1998

**Databases searched:**

**Other: Online:- WPI**

**Documents considered to be relevant:**

Category	Identity of document and relevant passage	Relevant to claims
	NONE	

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.